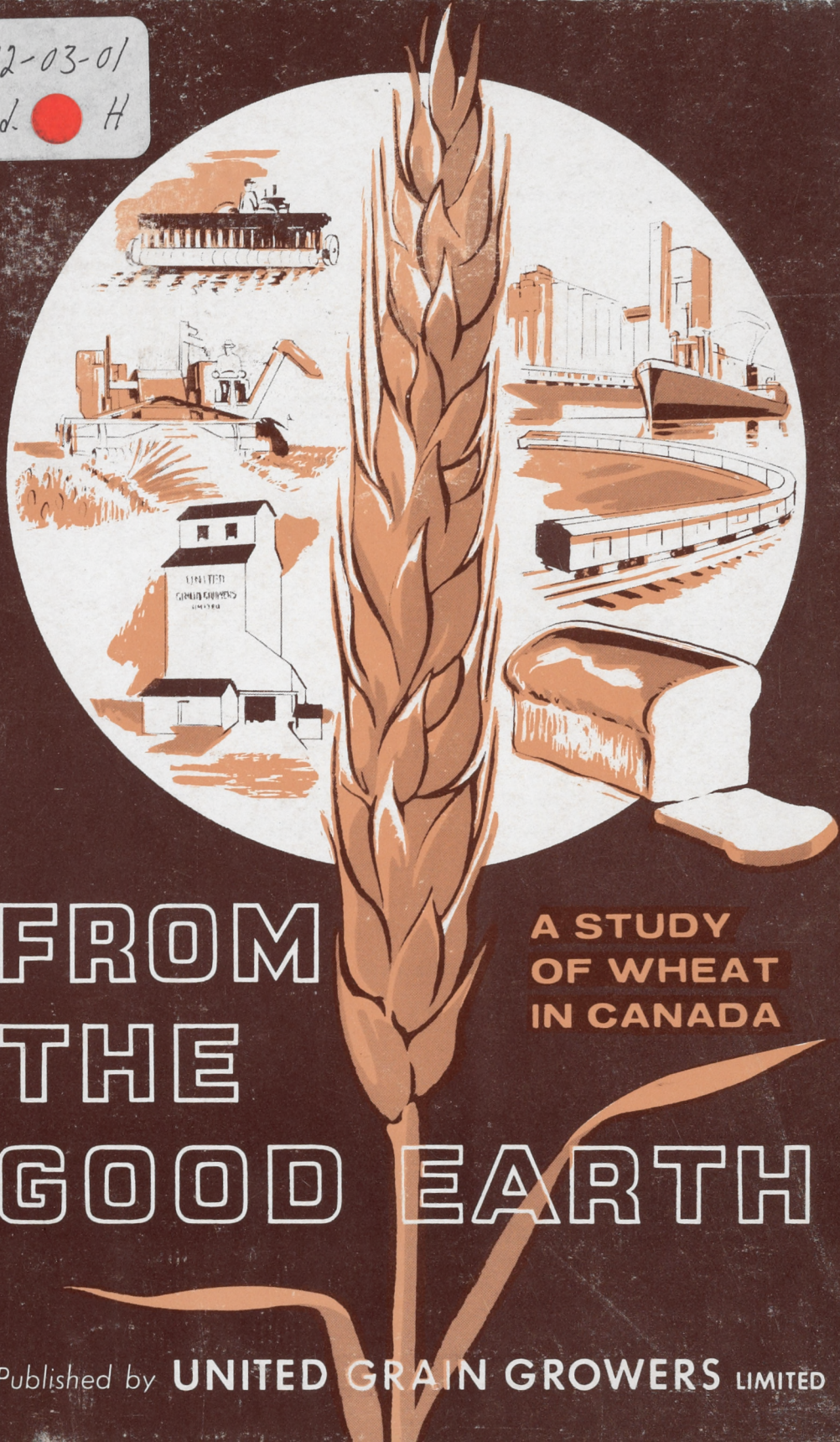


0112-03-01

n.d. ● H



# FROM THE GOOD EARTH

A STUDY  
OF WHEAT  
IN CANADA

Published by **UNITED GRAIN GROWERS LIMITED**

**Agriculture** is Canada's most important single industry, providing as it does a livelihood for some 2,600,000 people . . . about 15 per cent of our population.

This pamphlet has been prepared by United Grain Growers Limited to assist young students, particularly those in grades 7 to 10, in their studies of grain.

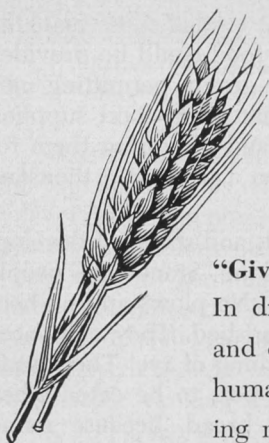
## **Table of Contents . . .**

	<i>Page</i>
Early History of Wheat Growing .....	1
The Wild Wheat of Palestine .....	4
Growth of the Wheat Plant .....	5
Wheat and Civilization .....	6
Introduction of Wheat to Canada .....	8
Origin of Red Fife .....	9
The Discovery of Marquis .....	11
Planning the Farm Program .....	13
Grain Act and	
Board of Grain Commissioners .....	14
Problems of Marketing—Grain Boards .....	14
The Canadian Wheat Board .....	15
The Grading of Wheat .....	19
Canada's Grain Industry .....	22
International Wheat Agreement .....	23
The Rochdale Pioneers .....	25
The Story of United Grain Growers Ltd. ....	26



# FROM THE GOOD EARTH

## A STUDY OF WHEAT IN CANADA



**“Give us this day our daily bread” . . .**

In different forms and in different lands, by every race and creed, this has ever been the prayer of the countless humans who have inhabited the earth. Today, to increasing millions of the world's growing population, bread is indeed the “staff of life.” To them, as to us . . . bread means wheat!

**B**READ is the world's most common basic food—it is also the cheapest. While many kinds of grain can be used to bake bread, the universal preference is for bread made of wheat. It is natural then that people who eat bread should be interested in knowing more about the origin and history of the grain that sustains them. The growing of wheat goes far back into prehistoric times . . . its exact origin, however, has never been clearly established.

The earliest evidence of agriculture is found in Central Europe. It dates back some twelve thousand years to a phase of human affairs commonly referred to as the "Stone Age." In an early period of the "Stone Age" man first began to use implements and weapons made of stone. He also learned to domesticate animals, to develop the art of pottery, weaving and cooking and to engage in a form of agriculture using plants and seeds. The people of that era are thought to have traveled to Europe from a land lying to the south and southeast. Perhaps it was from a region now submerged by either the Mediterranean Sea or the Indian Ocean, for the contours of the ancient continents differed vastly from those we know today.

Wanderers by instinct, migrating with changes of climate and in search of food, people of the "Stone Age" did not at first stay with their primitive agriculture. Only at times did they harvest the crops they had planted, preferring it seems the roaming existence of the hunter. Later they settled in tribal groups and entered a form of community life. Thus developed the first form of civilization.

Indeed it was the appearance of agriculture that tended to tie mankind together in communities. This was possible because food could be provided to a large number of people by a relatively smaller group, permitting men to engage in endeavors other than the constant search for food supplies. Without the knowledge of cultivating cereal crops and of storing them for later use, not one of the world's great cities, not even a town of a thousand people, could have come into existence.

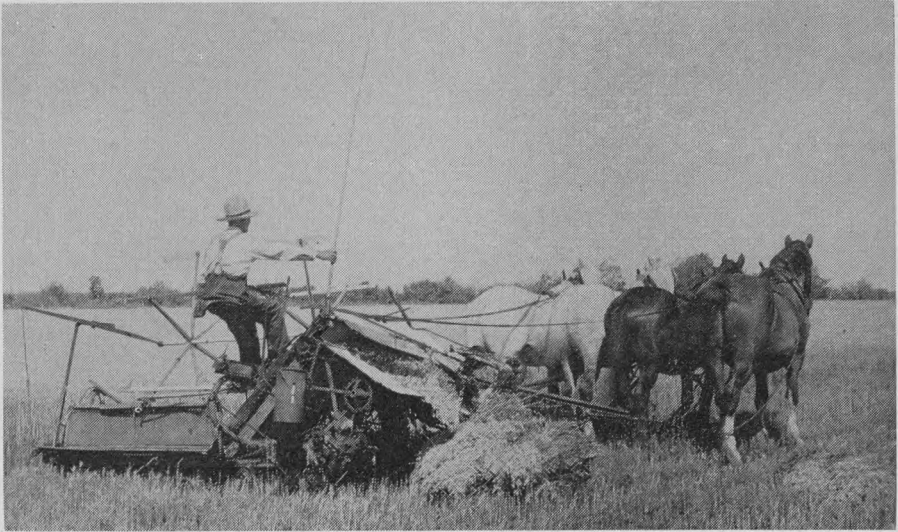
In tracing the history of the ages through periods and stages of development, H. G. Wells, in his "Outline of History" says of the "Stone Age" people—"Of their agricultural methods we know very little. No plows and no hoes have been found. They were of wood and have perished. They cultivated and ate wheat, barley and millet, but they knew nothing of rye. Their grain they roasted, ground between stones and stored in pots to be eaten when needed. They made exceedingly solid and heavy bread, because round flat slabs of it have been found in deposits in the lake districts of Switzerland. These were discovered in the very dry winter of 1854 when the water level sank to an unheard of lowness, revealing the foundations of prehistoric pile dwellings of the Neolithic (Stone) Age.

"One type of barley that they had is that which was cultivated by the ancient Greeks, Romans and Egyptians. They also had an Egyptian variety of wheat showing that their ancestors had brought or derived this cultivation from the southeast. The centre of diffusion of wheat was somewhere in the Eastern Mediterranean region."

When the Lake Dwellers sowed their little patches of wheat in Switzerland, they were already following the traditional practice of mankind. The seed must have been brought from some distant region where man had been growing wheat perhaps for thousands of years.



## A STUDY OF WHEAT IN CANADA



*Before the advent of combine harvesters, horse drawn binders cut grain — sheaves were set together in stooks.*

Wheat has been found in Egyptian tombs, estimated to be 6,000 years old. The hulls of this wheat clearly indicate that it was threshed by a special type of mill. Egyptian or "Mummy" wheat has been offered to modern farmers at fabulous prices, but careful test has proved that real "Mummy" wheat will not germinate, having entirely lost its power to reproduce. The Chinese considered wheat a gift from Heaven and are known to have used it as a food 5,000 years ago. The traditional Chinese social system recognized four main classes. Second in standing of these groups were the "cultivators of the land," ranking above both artisans and merchants.

It was in the Western World however, that agricultural practices appear to have been rapidly extended. This occurred when the Romans developed varieties of wheat which could be grown successfully in distant parts of the Roman Empire. Strict control was exercised by the Roman State which distributed seed, determined the quantity to be sown and marketed the harvested crops.

The manner in which wheat spread throughout the world, apart from the Roman Empire, is as obscure as is the mystery of its origin. Few are the areas of the earth's surface however, where it is not cultivated. Except in the Arctic regions and the wastelands of the great deserts, wheat is grown in almost every country of the world. Its production is recorded in regions of the Dead Sea, which lies 1,292 feet below sea-level in the Jordan Valley. It is cultivated in the highest mountain ranges, the record being in Tibet, where it is grown 15,000 feet above sea-level.



*Early type combines were pulled by tractor — grain was cut and threshed in one operation.*

## THE WILD WHEAT OF PALESTINE

THE search for the primitive wheat specie continued down through the ages but only in the present century have we learned something about it.

In 1906 Aaron Arnonsohn, Director of the Jewish Experimental Station at Haifa, Palestine (now Israel), was prompted to search for wild wheat in the locality of Mount Hermon, near Upper Galilee. While walking in a vineyard he suddenly noticed an isolated plant growing in a rock crevice. At first it looked like barley, but on closer inspection it proved to be the long sought, and what is now known as the "Wild Wheat of Palestine." Arnonsohn was elated, for although he found but a single plant, it was a fine specimen.

Later in the same vicinity he found wild wheat growing in abundance. Here at last was the original type . . . the ancestral parent of all modern wheat varieties. Samples of "Palestine" wheat have since been grown at Bard, California, and certain types of "Wild Wheat" are reported to have grown experimentally in Western Canada. "Palestine" wheat closely resembles certain types of grasses, from which all cereal grains have developed. It bears drooping, long-bearded heads and the stem is very brittle.

## **GROWTH OF THE WHEAT PLANT**

**A**LL living things possess a certain power of growth. They require nourishment and are able to move about as they feed and grow. The movement may be very slight, perhaps no more than the spread of roots in the ground or the stir of branches in the air. They reproduce their own kind by means of seeds, spores, eggs or other ways of creating life. There is much similarity in the processes of reproduction of animal life and plant life. Each continually strives to reproduce and to preserve its own life. This is the way of all things living.

Wheat, like other cereal grains, is self-fertilizing. The flowers have both male and female cells, called the stamen and the pistil. The stamen has two tiny pollen sacks which overhang the pistil in the centre of the flower. Fertilization generally occurs on a warm summer morning. The stamen of the little flowers suddenly projects bursting the pollen sacks, allowing the pollen to fall on the pistil of the same flower. Thus the seed of a new grain is created, which in time will go through the same process of self-reproduction.

Shedding of the pollen lasts only a few minutes but the procedure is repeated over a four-day period to ensure that all the flowers are pollinated. Natural crossing as a result of the wind carrying pollen from one plant to another is quite possible. In like manner, crossings can be caused by insects who frequently act as pollen carriers. This can result in the production of hybrid or plants of mixed parentage. The wheat flower being capable of self-reproduction, does not need to attract bees or insects to carry pollen, hence it has neither perfume nor honey.

When wheat is seeded the tiny grains immediately start the involved process of reproduction. Growth begins with the seedling plant sending roots into the ground to find water and minerals. The stems shoot upward to absorb plant food in the form of carbon dioxide from the air. Each plant sends up a number of stems and each in turn develops its own roots. This expansion of the plant is called stooling. Once the root system is firmly established the rate of growth depends on weather conditions.

One of the most critical periods of growth in the life of the wheat plant is the flowering stage, a period that lasts about ten to fourteen days. This is the time when evaporation of water from the leaves of the plant takes place at a very high rate, forcing the root system to make greater effort in providing water for the plant. Moisture of course must be present at some level of the soil and the roots must stretch out to find it.

As growth progresses the heads containing the new grains are formed. The kernels pass from the white paste or "milk stage" through the "dough



stage" and as the dough loses moisture, the kernels harden and ripen. The grain is then ready for harvest.

In the growing period the wheat plant sends into the ground a mass of fibrous roots to a depth of from four to six feet. But moisture in the ground must extend to a depth of three feet to give an abundant crop, and this must be followed by timely rainfall. A two foot depth of moisture would assure only a meagre crop while any lesser amount would require very heavy rainfall to produce a worthwhile harvest. The volume of water needed to produce a wheat crop is truly startling. It has been estimated from official experiments that the production of a bushel of wheat requires from 1,000 to 2,600 pounds of water.

## **WHEAT AND CIVILIZATION**

**A** BACKWARD glance at world history and the part wheat has played in its development will pay us well. Many of us may shudder when the word "history" is mentioned but on closer study we may find that what sometimes appears to be a dull subject becomes real and living to us. Every event which occurs, no matter how insignificant it may seem, is a part of history.

We have already learned that much of our civilization of today would have been impossible without the cultivation of wheat. It is not strange then that some of our earliest records of trade between nations have to do with wheat. The reader will recall how Joseph went into Egypt and under Divine guidance stored up the wheat crop of the seven bountiful years as a safeguard against the seven years of famine. Not only was this civilization of the Nile dependent upon wheat, but likewise the civilizations across the Red Sea in the Biblical lands of Mesopotamia (Iraq).

One of our earliest records of trade between nations was that of the commerce in wheat between King Solomon and Hiram, King of Tyre, nearly four thousand years ago. Today wheat is still one of the most important food items entering into international trade.

It is interesting to note too, how wheat production areas have changed with the decay of the old civilizations and the development of the new. From the Euphrates and the Nile the progress of civilization shifted to the Mediterranean Area. Here, we find Grecian ships sailing into the Black Sea to obtain wheat from what is now part of the U.S.S.R., at least five hundred years before the Christian era. A few hundred years later we find the centre of commerce and civilization in the Roman Empire, with the source of the wheat supply in the British Isles.

## A STUDY OF WHEAT IN CANADA



*Six self-propelled combines in action on a Saskatchewan farm*

Over a thousand years pass and we find the British Isles the centre of development in industry and government. The country which once supplied the Roman legions with their bread has become the greatest importer of wheat in the world. Most of this wheat comes from the New World and is eventually of great significance to the development of Canada as a nation.

Why has Canada become one of the world's greatest producers of wheat? Three factors have been important: cheap land, a large population in the British Isles using wheat as a staple food, and an efficient transportation system to move our wheat from the producer to the consumer. Canada has always had plenty of suitable agricultural land. To understand the second we must go back to the England of the seventeenth century. The industrial revolution was reaching its peak and England was rapidly becoming the manufacturing centre of the world. This implied a rapidly growing population and since England could produce only a small part of her own food, much had to be imported.

The last of our important factors—transportation—needs yet to be considered. This was well on its way to being solved when James Watt invented the steam engine. It was then but a short step to the steam locomotive and the steamship. Of course wheat was carried from the New World to the Old by sailing ship but this was hazardous and only small quantities could be carried. The development of the iron ship struck the final blow to the old methods of transportation by water. After the railroad came to America it was only a short time before Canada started on a period of railroad building. All was ready for the development of the immense plains of Western Canada and the building of the wheat industry.

## INTRODUCTION OF WHEAT TO CANADA

**W**HEAT was introduced into Western Canada by the Selkirk Settlers in 1812. Lord Selkirk had obtained 116,000 square miles of land from the Hudson's Bay Company and sent his band of pioneers from Scotland to found a new colony for his evicted crofters. Winter wheat was seeded in the fall of 1812 when the advance party, led by Miles Macdonell, arrived at the junction of the Red and Assiniboine Rivers. Spring wheat was seeded early in 1813.

The first two crops were total failures due to the settlers' lack of knowledge and inadequate equipment. So anxious was Lord Selkirk to encourage agriculture however, in 1815 he offered a prize of £50 to the settler who raised the largest quantity of wheat. Inspired by this offer, efforts were intensified and this time rewarded, the first wheat being harvested in Western Canada in 1815.

During their first years the Selkirk pioneers, known as the Red River settlers, had more than Nature to contend with. The North-West Trading Company, a company of fur traders, frequently clashed with its great rival, the Hudson's Bay Company. The former resented the establishment of settled communities, believing the development of settlements might eventually destroy the fur trade. During these clashes of rival companies crops were trampled and in some cases totally destroyed. In addition, passenger pigeons heavily damaged the sparse crops and on the whole agriculture made very little progress.

A final catastrophe occurred in 1819 when a plague of grasshoppers struck, leaving the colonists without any wheat for seed. A pioneer witness records, "Just as the crop was in head, a cloud of grasshoppers darkened the sky and fell like a heavy snow upon a devoted colony. Everything green perished!" Wheat production the following year was made possible by a party of settlers who made a winter journey on snowshoes to Prairie du Chien, Wisconsin, where they arranged the purchase of two hundred and fifty bushels of seed. Shipped by flatboats the precious seed arrived via the Red River just in time to be sown in the late spring of 1820.

The colony made rapid progress in the thirty years that followed. A census taken in 1849 showed the population to be 5,391 persons, and a survey at the same time showed about 6,000 acres of land under cultivation. Despite periodic setbacks development continued. Then in 1868 the grasshoppers struck again, destroying every vestige of crop. Again seed wheat was obtained from the United States; this time from St. Paul, Minnesota. Steady progress was then to continue and although the peak of expansion was still



## A STUDY OF WHEAT IN CANADA

a long way distant, international attention was centred on Canada in 1876 when an unidentified variety of wheat, grown at Fort Vermilion on the Peace River, won the world championship at Philadelphia. Here indeed was proof of the progress made in half a century.

### ORIGIN OF RED FIFE

CANADA'S world-famed reputation as a grain producing country was built on two varieties of wheat. First on Red Fife, named after David Fife a farmer of Otonabee, Ontario, which became the standard in the West in the early eighties of the last century, and subsequently on Marquis, which will be dealt with later. The tremendous export volume of today had its beginning in 1878 when the first consignment of Red Fife was shipped from Winnipeg to the R. C. Steele Company, seed merchants in Toronto. The amount shipped was 857 bushels for which the growers received 85 cents a bushel. The following year the first shipment was made to British millers who since that time have become Canada's most important customers.

There has always been some doubt of the manner in which Red Fife was introduced into Western Canada. Perhaps it came with new settlers from Ontario. Again, it may have formed part of the seed shipped from the United States by the Red River Colonists in 1869 and there is some evidence to support this possibility. We know more however, of the part played by David Fife in developing the variety which was later to bear his name.

Although there are several versions of the story, the late Dr. E. Cora Hind, a foremost authority, relates "Facts early established are that David Fife about 1842 had sent to a friend in Glasgow for some good seed wheat, expressing a preference for one of the Russian varieties. The friend filled his cap from a cargo ship just arrived from Danzig, a Baltic port, and sent it to Fife in Canada. He failed however to say whether it was spring or winter wheat. The seeds were planted in the spring but only one plant with five heads matured. These Fife saved as they were attractive and evidently spring wheat. They were seeded in a sheltered spot next spring, did well, were duly harvested and from that small beginning sprang all the Red Fife wheat which later was to make Canada famous." Tradition also has it that David Fife's wife contributed to Canada's future destiny by rescuing the single plant from the family cow after it had consumed part of the plant which was later used for seed.

Man breeds wheat and many other plants just as he breeds cattle and in doing so he seeks to introduce and to establish the qualities he values. This can be done in two ways; by simple selection or by combined selection and crossing. In simple selection a head is chosen which appears to be of a



*Testing Canadian wheat — a view of the Baking Section of the Board of Grain Commissioners' laboratory, showing technical equipment used to determine baking quality of Canadian wheat.*

superior type and the grains from this head are planted. On maturity the best heads are again selected and planted. This selection and planting continues until definite superiority is established. David Fife undoubtedly followed this procedure in developing Red Fife wheat.

The scientific plant breeder however does not leave crossings to chance. With great care he transfers the pollen of one variety to the pistils of another, covering the head with gauze or paper sacks to prevent the pollen of other plants from getting to the pistil of the plant used in the crossing. Results vary, some heads resemble one parent—some the other. Sometimes neither parent is resembled, much to the annoyance of the plant breeder, whose work is delayed when this happens. Crossings are continued in this manner and slowly strains are improved and new varieties developed. Plant scientists have greatly contributed to agriculture since the turn of the present century.

The role of David Fife however will long be remembered and it was an indirect tribute to him when in 1932 the Canadian Seed Growers' Association erected a cairn in Winnipeg marking the exact spot where farmers delivered the first Red Fife wheat for shipment to Toronto.

## THE DISCOVERY OF MARQUIS

**D**R. CHARLES E. SAUNDERS is an outstanding name among the many contributors to Canadian agriculture. It was Dr. Saunders who, as Canada's first Dominion Cerealist, gave to Canadian farmers Marquis wheat, a variety which for years had no rival. The millions of bushels of Marquis that have been shipped to the four corners of the world all originated from a single head of wheat planted by Dr. Saunders in 1903. While newer varieties may today be better suited to certain areas because of climate, growth factors and soil conditions, the discovery of Marquis was undoubtedly one of Canada's greatest agricultural triumphs.

Although three experimental farms had been established before 1850, the first by Lord Selkirk, each of these had failed. In 1886 Dr. William Saunders was appointed by the Government to organize and direct the work of several new Dominion Experimental Stations. He had conceived the idea of improving plants by breeding, and to assist him Dr. Saunders employed his two sons, Charles E. Saunders and A. P. Saunders. Red Fife wheat, which at this time had proved the basis of large scale production, while highly productive and possessing excellent milling and baking qualities, had one bad fault. It was late in ripening which made it susceptible to damage by early frost and farmers were crying for an earlier maturing variety.

Dr. Saunders with his two sons lost no time in seeking an answer to the frost hazard. Varieties from foreign countries were imported and grown at various experimental stations from which it was found that the earliest maturing wheats came from Russia and India. These unfortunately were inferior to Red Fife in milling and baking quality. Ladoga, a hard Russian wheat, gave encouraging results on early experiment, but tests of the first carlot shipped proved disappointing. The flour lacked strength and produced a yellow-colored bread of coarse texture. Not discouraged by initial failure however, the work went steadily on until thousands of crosses had been made and new strains produced.

In 1903 Dr. Charles E. Saunders was appointed to a newly created position as Dominion Cerealist and was authorized to confine his attention to plant breeding. Thus he inherited the mass of material which resulted from the research of both his father and brother. He particularly liked one of the strains which had been produced from a crossing made by his brother. The male parent of this attractive type was Red Fife and the

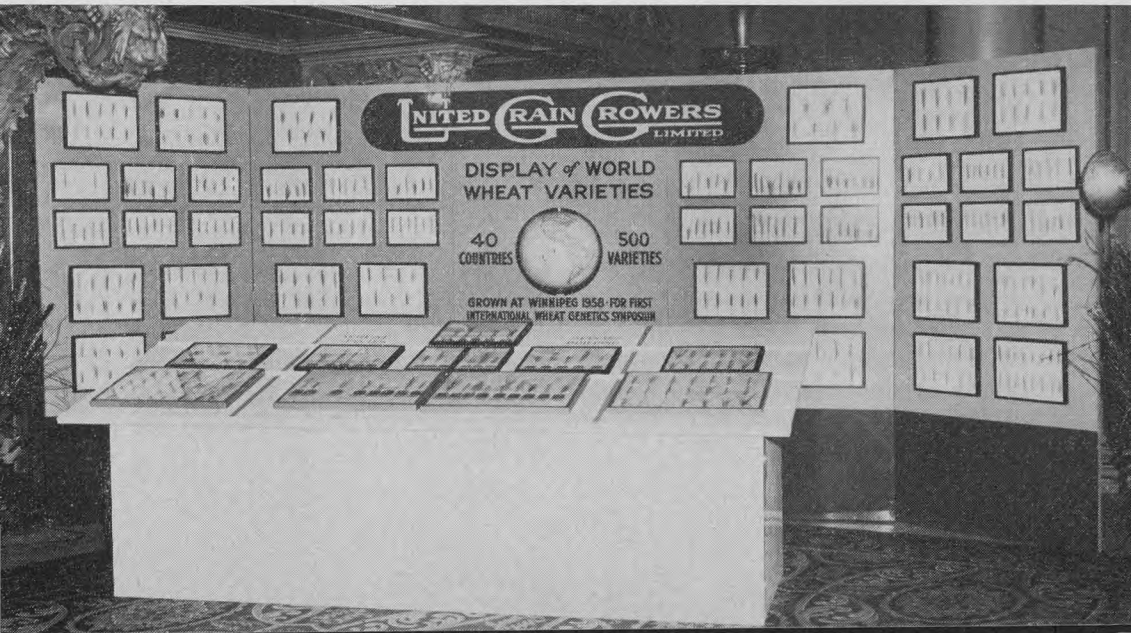


female parent, an early ripening Indian wheat known as Hard Red Calcutta. As Hard Red Calcutta is a trade name covering a mixture of different varieties, there must always be doubt as to the specific strain which served as the female parent of this promising type.

Selecting a single head, Dr. Saunders in 1903 started reproduction of his new strain and in 1906 had a sufficient quantity to provide exhaustive milling tests. The results were excellent, and as the new wheat matured from six to ten days earlier than Red Fife, the answer to the demand for an early wheat had been found. Dr. Saunders named his new variety Marquis. It spread throughout Western Canada and by 1928 Marquis occupied between 80 and 90 per cent of the entire spring wheat area. Canadian farmers have literally reaped hundreds of millions of dollars from their production of Marquis. Its splendid milling and blending qualities have greatly enhanced Canada's reputation with importing countries throughout the world.

The discovery of Marquis revealed the possibilities of further plant breeding and down through the years steady progress has been made in improving varieties. Types most suitable for certain soil conditions, or that will resist such diseases as smut, the blight of rust, insect damage and various hazards that continually confront the farmer, is the constant objective of the plant breeder. Among the important varieties developed following the introduction of Marquis were Reward, Rescue, Thatcher and Saunders—the latter named for the discoverer of Marquis. Despite, however, the numerous excellent wheat varieties that have been made available to farmers, Marquis continues to be the standard of quality.

*Enabling comparison of Canadian grain with that of other countries this display of World Wheat Varieties attracts the interest of prairie farmers wherever exhibited.*



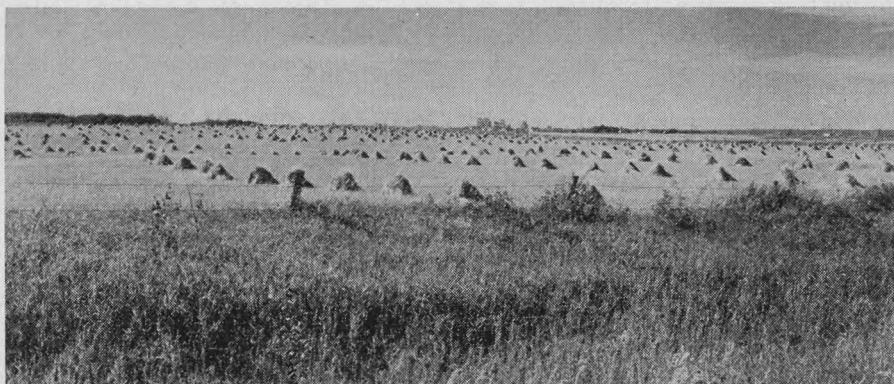
## PLANNING THE FARM PROGRAM

**I**N planning his season's program many factors must be considered by the farmer. He must first decide the kind of grain best suited to his particular locality. This requires consideration of his soil structure, the average local rainfall and other determining factors. He must weigh the danger of damage by early frost and the probability of hail damage in his area.

Very likely he will try to anticipate the best way to dispose of his grain after it is harvested. Should he market through his local elevator to the Canadian Wheat Board or will feeding livestock be more profitable. Many large producers find it suits them better to dispose of their grain through livestock feeding, for in so doing they escape the limitation of marketing under the delivery quota system.

Having decided the kind of grain he will grow, the farmer must then determine the particular variety. Wheat, oats and barley, in fact every kind of grain, is classified under its varietal identity. Each grain has a number of varieties, each with different characteristics. Here again local conditions must be carefully studied. What may be a popular variety in some areas may not be suited to others.

Across the Prairie Provinces the growing period for wheat averages about 115 days. Because seeding generally is earlier in southern areas crops as a rule ripen more quickly than in the north. In the north the risk of early frost is greater. In such regions varieties which mature quickly will likely be preferred. Where rust or damage by sawfly and other insects must be anticipated, varieties resistant to such hazards will have a strong appeal to the farmer. These and other considerations must all be determined in planning a season's program.



*A field of stooked grain.*

## **GRAIN ACT AND BOARD OF GRAIN COMMISSIONERS**

**T**HE rapid expansion of wheat production in Western Canada soon necessitated the building of elevators and the development of other facilities to handle the increasingly large crops. Foreseeing large profits resulting from such an investment, the first elevators were built by private grain companies.

With the building of elevators, abuses soon crept into the handling of grain. Farmers, entirely at the mercy of the elevator companies for grade, weight and dockage, voiced strong complaints which led to a Government inquiry and later to the passing of the "Manitoba Grain Act" in 1900. In 1912 the Canada Grain Act superseded the Manitoba Grain Act and provided more rigid control of the grain industry with added protection for the farmer. One of the immediate advantages to the farmer resulting from the new grain act came with the appointment of a Board of Grain Commissioners. The Board was charged to administer regulations applying to the grading and weighing of grain and various phases of grain handling, including the licensing and bonding of grain dealers.

The Board of Grain Commissioners, which has complete supervision of all grain handling in Canada, consists of a Chief Commissioner and two Commissioners at Winnipeg, with Assistant Commissioners located in each of the prairie provinces. Farmers claiming unfair treatment by elevator companies can seek redress of their grievances through the Board and one of the duties of the Assistant Commissioners is to investigate and settle such complaints. The Board also maintains a Research Division to provide technical services and information necessary in administering the Grain Act. Each year the Board's laboratory conducts thousands of tests to establish the milling and baking quality and other characteristics of the new crop. Information resulting from such tests is published in report form as a guide to milling companies and other users of Canadian grain.

## **PROBLEMS OF MARKETING —GRAIN BOARDS**

**T**HE WINNIPEG GRAIN EXCHANGE was organized in 1887 to provide a meeting place for the buying and selling of grain, and soon ranked as a world trading centre. Here developed the open market system of selling grain which was to be the accepted method in Canada for over fifty years.

Actually the first departure from competitive trading on the open market occurred during World War I when in 1917 the Government decided



## A STUDY OF WHEAT IN CANADA

the price of Canadian wheat should be controlled to prevent speculation. To accomplish this a Government Board was set up which paid the farmer a fixed price for his wheat. Trading in wheat on the Winnipeg Grain Exchange was suspended.

In 1919 the first Canadian Wheat Board was established. It was created because farmers demanded protection against wide price fluctuations and unstable markets which were to be expected during an adjustment period following the war. The Board paid the farmer an initial price and allowed him a proportionate share of any surplus accruing when his grain was sold. The first Wheat Board operated only one year, at the end of which time world marketing conditions seemed to be more settled. Wheat trading was resumed on the Winnipeg Grain Exchange in the fall of 1920 and continued without interruption until 1943.

It was from conditions which developed in the depression years of the "thirties"—when top grade wheat was worth less than 20 cents a bushel on the farm—that the Canadian Wheat Board in its present form was established in 1935. Authority of the Wheat Board in its early operation was greatly limited compared to the control it was later to assume. Indeed until 1943 a farmer had the choice of two methods in selling his wheat—either on the open market or through the Wheat Board.

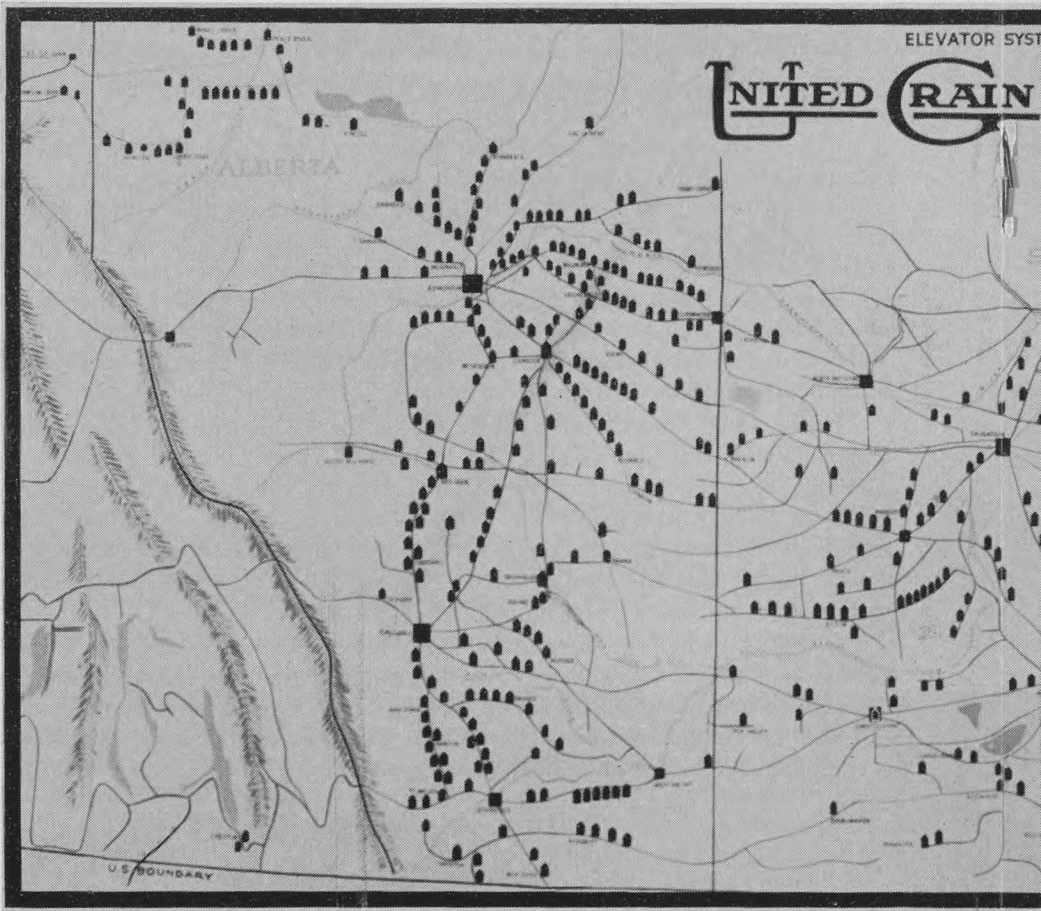
In 1943, during the Second World War, emergency conditions forced the Government to appoint the Wheat Board as the sole sales agency for Canadian wheat. Trading on the Winnipeg Grain Exchange was suspended and with continued control by the Wheat Board since that time, operations of the Grain Exchange have been greatly curtailed.

### **THE CANADIAN WHEAT BOARD**

**T**HE PRINCIPAL GRAINS produced in Western Canada are wheat, oats, barley, flax and rye. Marketing, that is delivery of grain to a saleable position in a country elevator, is based on a quota delivery system established and controlled by The Canadian Wheat Board. (It has no connection with the Provincial Wheat Pools). The Wheat Board derives its authority from the Government of Canada and reports to Parliament through the Minister of Trade and Commerce. The Wheat Board is the sole selling agent for all wheat, oats and barley, and while it controls the shipment of rye and flax these grains are sold on the open market. All costs of the Wheat Board's operations are paid for by the farmers of Canada.

The Wheat Board has no elevators or grain handling facilities of its own. The elevator companies act as its agents and use their facilities in moving grain from country points to the huge terminal elevators from which

FROM THE GOOD EARTH . . .

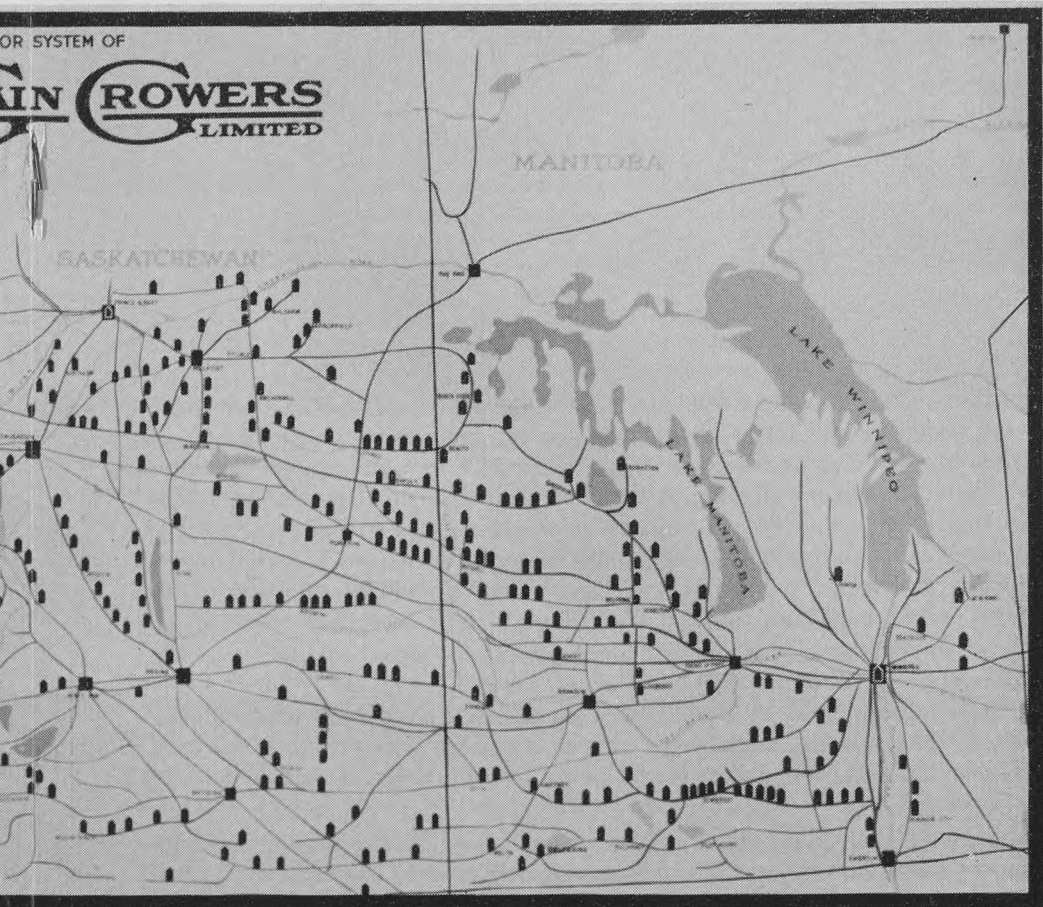


THE elevator system of United Grain Growers Limited is widespread throughout Western Canada, just as the ownership and control of the Company is widespread among prairie farmers.

There are at present 780 United Grain Growers' country elevators: 137 in Manitoba, 284 in Saskatchewan, and 351 in Alberta, with 8 additional elevators just over the border in British Columbia. The map above shows hundreds of additional points where the services of the Company are made available to farmers in the distribution of supplies and in the issue of insurance policies.

Grain collected through these hundreds of country elevators flows to market by either the eastern or the western route, through the Company's terminals at Port Arthur or Vancouver.

## A STUDY OF WHEAT IN CANADA



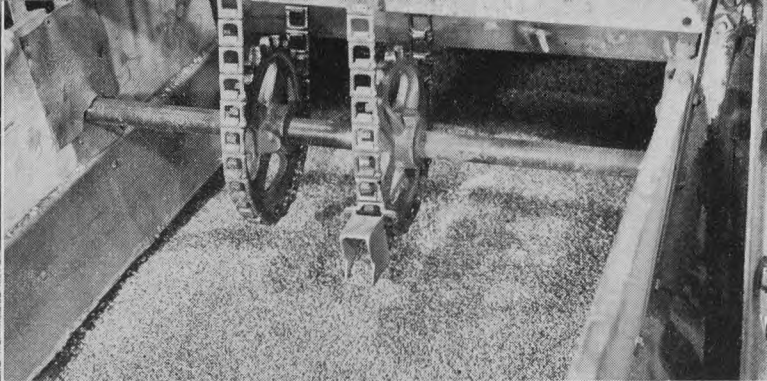
There are over 50,000 shareholder members, most of whom own both a Membership Share, par value \$5.00 each, entitling them to vote, and also one or more Class "A" Shares, the par value of which is \$20.00 each and which do not carry voting rights. Membership Shares are available to all customers and may be acquired only by customers. Continuing control of the Company by active farmers doing business with United Grain Growers Limited is thus assured.

Members are organized in approximately 330 locals, each of which elects a delegate to attend the annual meeting of the Company.

Shareholder members have an equity in the Company of over \$12,000,000. Payments to shareholders and to customers have amounted to more than \$21,000,000.

The ownership and control, the services rendered and the benefits derived by members and customers of the Company extend as widely throughout the West as this map indicates.





*Grain testers at work. Stationary grain is sampled using a device called a "stabber" which reveals uneven loading. Moving grain is sampled by automatic sampler (right).*

it is later shipped to the markets of the world. The major western terminals are located at Port Arthur, Fort William and Vancouver.

Delivery quotas are based on what is termed the "specified acreage" of the producer and take into account the combined acreage seeded of all grains, forage crops and land in summerfallow. The quota system provides for equitable delivery of grain as between large and small producers and is particularly important when farmers have more grain to deliver than the elevators can handle. At the beginning of each season an initial delivery quota is authorized by the Wheat Board, through which producers may deliver stated quantities of grain regardless of their "specified acreage."

As the season progresses and more elevator space becomes available higher quotas are periodically authorized. All deliveries are entered in the producer's Grain Delivery Permit Book on which is shown the total number of bushels he is authorized by the Wheat Board to deliver during the crop year. Severe penalties are imposed for delivering more than the amount authorized.

Having delivered wheat, oats or barley to an elevator the farmer receives an initial payment for the amount delivered in the form of a "cash ticket" which can be readily converted to cash. Payment is made by the elevator agent on behalf of the Canadian Wheat Board which assumes control of the grain on delivery. As a rule the initial payment represents approximately 75 per cent of the value of the grain in relation to world market quotations. For several years the initial payment for wheat has been set by the Wheat Board at \$1.40 per bushel, basis the grade of One Northern in storage at Port Arthur, Fort William or Vancouver.

On delivery the grain is placed in a pool with other grain of the same grade. As the Wheat Board sells grain for domestic use and for export at prices which because of ever changing conditions of supply and demand constantly fluctuate, the final value of the farmer's grain can only be established when total stocks of each grade are sold. During the year however the farmer receives an interim payment and later when all stocks for the year have been sold he receives final payment. Thus every producer receives an equal price for the same grade of grain.



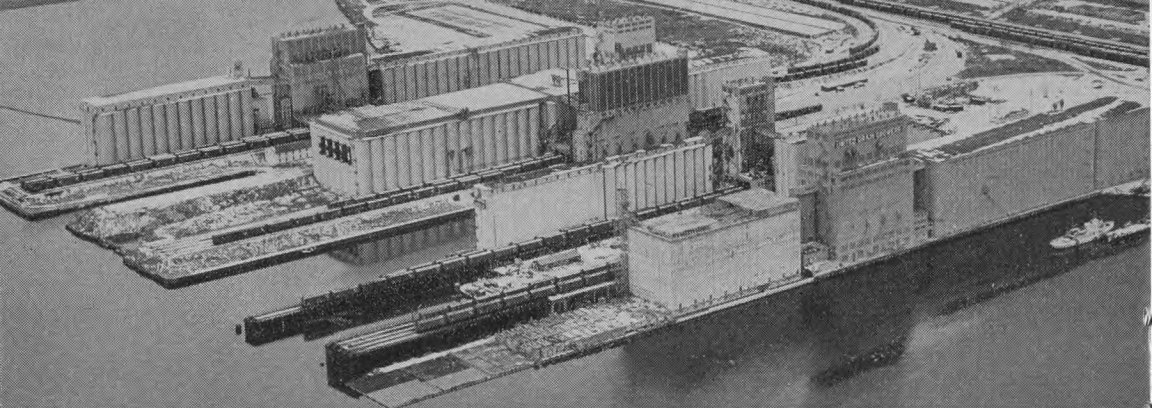
*Sampling grain at the Lakehead. A Board of Grain Commissioners' Inspector makes a check on grain loaded from a terminal elevator into the hold of a waiting vessel.*

## THE GRADING OF GRAIN

CANADA'S SYSTEM of grading grain is unequalled by any other country. Supervised by the Board of Grain Commissioners its grain grading regulations are designed to safeguard the high reputation Canadian grain enjoys the world over. All grain is sold on "Government Certificate Final" which guarantees the purchased grain will be equal to a specific standard of quality.

The Grain Act provides for certain statutory grades of grain and clearly defines the standard of quality together with the amount of damage permitted in each grade. "Standard" samples, comprised of the new crop, are established each year to guide the grain trade in their operations. Portions of the "Standard" samples are also sent to the principal markets of the world for the guidance of importers. While appearance may differ slightly from year to year depending on growing conditions, the quality and milling value must conform to the "Statutory Grade" requirements as defined in the Grain Act.

Hence a buyer of No. 1 Manitoba Northern is assured that his wheat will weigh a minimum of 60 pounds per bushel, will be of Marquis variety or a variety equal to Marquis, contain not less than 65 per cent of hard vitreous kernels, will be well matured and practically free from damaged kernels and foreign matter. In addition the baking properties (gluten strength and protein content, factors essential in the milling of flour) of each "Standard" are determined by test at the Board's laboratory and the results published for the guidance of purchasers.



*A group of the Port Arthur terminal elevators which with Fort William have storage capacity for over 95 million bushels of grain.*

Such assurance to the buyer is extremely important as 80 per cent of Canada's annual wheat production is exported to countries throughout the world. Indeed the export of wheat is of vital importance to our country's economy. Practically all western wheat, other than that used by milling companies, moves to export position at huge terminal elevators at Port Arthur and Fort William at the head of Lake Superior and Vancouver on the Pacific Coast.

Some grain is shipped through the port of Churchill but because of its short shipping season—generally August and September—the movement is relatively small. The concrete constructed terminal elevators have much greater storage capacity than have elevators at country points. While 75,000 bushels would be a fairly large plant in the country, large terminals have capacity to store as much as 9,000,000 bushels.

As grain is moved from country elevators it passes through such major cities as Winnipeg, Saskatoon, Calgary and Edmonton. At these points Government Inspection Departments are maintained and it is here each carload of grain receives its primary inspection and is assigned its provisional grade. At the time the car is loaded the elevator agent makes up a bag sample representing an average of what he loads into the car. He fastens this sample—called the shipping sample—inside the car door after the car is loaded.

When a grain train arrives at a primary inspection point the car seals are broken, the shipping samples collected and rushed to the Inspection Office for grading. The sampled cars are resealed and proceed to destination. At the Inspection Office qualified government inspectors, after cleaning and weighing each sample, establish the grade, dockage (foreign matter, weeds, etc.) and moisture content and issue a certificate showing particulars of each car inspected. With only a car number to identify each sample, the inspector has no knowledge of the ownership of the car he grades. Yet the procedure of sampling and inspection is so highly organized that errors seldom occur.

Advice of the grade assigned by the inspector is forwarded to the terminal prior to the arrival of the train. This facilitates the unloading,



## A STUDY OF WHEAT IN CANADA

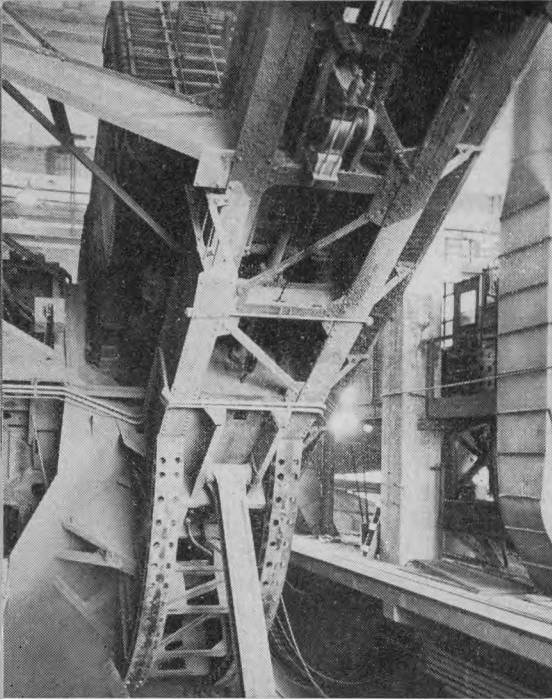
cleaning and binning with grain of the same grade of each car as it arrives. When the car is unloaded the grain is carried to its proper binning position by means of a wide conveyor belt. A device called an automatic sampler—consisting of metal cups on a chain belt—continually dips into the stream of moving grain and secures an average sample of the grain in the car. This is termed the “unload sample.”

The unload sample is then graded by a government Inspector who compares his decision of grade and dockage with that given on primary inspection. While the shipping sample is as a rule representative of the car's contents, the automatic sampler quickly discloses the inclusion of poorer (sometimes better) grain which may accidentally have been mixed into the car at time of loading. All foreign matter, weed seeds, etc. (dockage) is removed at the terminal and if the grain contains excessive moisture it is dried. Only clean and dry grain is shipped abroad. When grain is loaded into ships to move to foreign markets it is again checked by a Government Inspector. A final grade certificate is then issued covering each quantity of grain loaded. This certificate accompanies the grain to its destination.

Grading to a large extent is based on the physical appearance of the grain. Color, indicating the degree of ripeness, the extent of green or damaged kernels, the presence of different varieties of grain, etc., are to name but a few of the many factors involved. Years of training enables the inspector to quickly appraise the type and extent of damage by which he determines the grade. Grades and combinations of grades of all types of grain amount to several hundred in number. Dockage and foreign matter are assessed by mechanical means as is the moisture content of each car. Grain companies employ their own representatives to ensure that the highest possible grade is obtained for their own cars and for cars they handle on consignment for farmers.

If dissatisfied with the grade on primary inspection the company representative calls for re-inspection of the unload sample. In doing so he hopes it will be better than the shipping sample on which the primary inspection was based. This occasionally happens.

If re-inspection is unsuccessful and the original grade upheld the unload sample may be submitted to a Grain Appeal Board, these being located at Winnipeg, Calgary and Edmonton. Each Appeal Board comprises a chairman who is a senior government grain inspector and members who represent both producers' organizations and line elevator companies. All members are appointed by the Board of Grain Commissioners and are qualified grain experts. Without knowledge of the ownership of the car or its previous grade, it is the duty of the Board to assign the final grade and dockage to the unload sample of each car presented for appeal. The Appeal Board's decision is final and the shipment must be paid for on the basis of the grade it assigns.



*Two views of grain car being unloaded automatically — giant rockers tilt the car as the grain drops to the receiving pit.*



## **CANADA'S GRAIN INDUSTRY —WORLD'S MOST EFFICIENT**

**T**HE HARVEST AND HANDLING of Canada's grain crops require a tremendous volume of equipment and facilities. Farm machinery and trucks, railway equipment and elevator facilities, represent an investment of hundreds of millions of dollars. Of the total harvest, wheat is by far the most important single crop—about half the total and about twice the combined production of oats and barley. Flax and rye represent only a small fraction of the total harvest, which in the past ten years has averaged over a billion bushels annually.

To handle such huge volume there are over 5,300 country elevators with a storage capacity of 370 million bushels scattered across the Prairie Provinces. About 3,000 of these are owned and operated by farmer co-operatives—the Wheat Pools and United Grain Growers Limited. The balance are owned by private grain companies. These country elevators feed the terminals from which grain is exported. Terminals at Port Arthur and Fort William provide storage for over 95 million bushels, while Pacific port terminals have a capacity of 23 million bushels. In addition there are numerous large terminals along the St. Lawrence Seaway in Eastern Canada.

With the many complexities of the grain industry a remarkable feature is the co-ordination of all the services brought into use. Commencing on the

A STUDY OF WHEAT IN CANADA

farm with the threshers and combine operators are the trucking services and country elevators, the railroads and terminals, all of which are engaged in the physical handling of the harvest. Coupled with these is the Board of Grain Commissioners and its various departments; The Canadian Wheat Board; the Winnipeg Grain Exchange, and the banks who finance the private grain companies and the farmer co-operatives. The teamwork attained by all participating services is such that Canada's system of grain marketing is recognized as the most efficient in the world.

INTERNATIONAL  
WHEAT AGREEMENT

THE INTERNATIONAL WHEAT AGREEMENT came about because producers, consumers and government officials of many countries of the world wanted to find solutions to international wheat trading problems. On one hand there was the problem of uncertain markets for huge stocks held by export nations, on the other the uncertainty of long-time supplies for importers. Both exporters and importers suffered from price fluctuations and uncertainties. In 1949, forty-two importing and four exporting countries got together in an effort to reach an agreement which would solve their difficulties and at Geneva, Switzerland, the first agreement to run for four years was signed.

Consideration was first given to the total volume of wheat that is normally traded among nations—about 480,000,000 bushels annually. It was resolved that about half this amount could be covered by the agreement and specific amounts (quotas) were established for each member country.

Quotas for the exporting countries were:

Canada .....	163,000,000 bushels
United States .....	209,000,000 "
Australia .....	48,000,000 "
France .....	367,000 "
	<hr/>
	420,367,000 "

Under the agreement the exporting countries agreed to sell their quota for each of the four years if offered the *maximum price* set forth in the agreement. The import nations in turn agreed to buy their quotas during each of the four years if wheat was offered at the *minimum price* set in the agreement. Between the range of maximum or minimum both sides were free to trade as they saw fit.

The 1949 Agreement has been revised and renewed at intervals, the present Agreement being signed August 1, 1959, to run until 1962. The



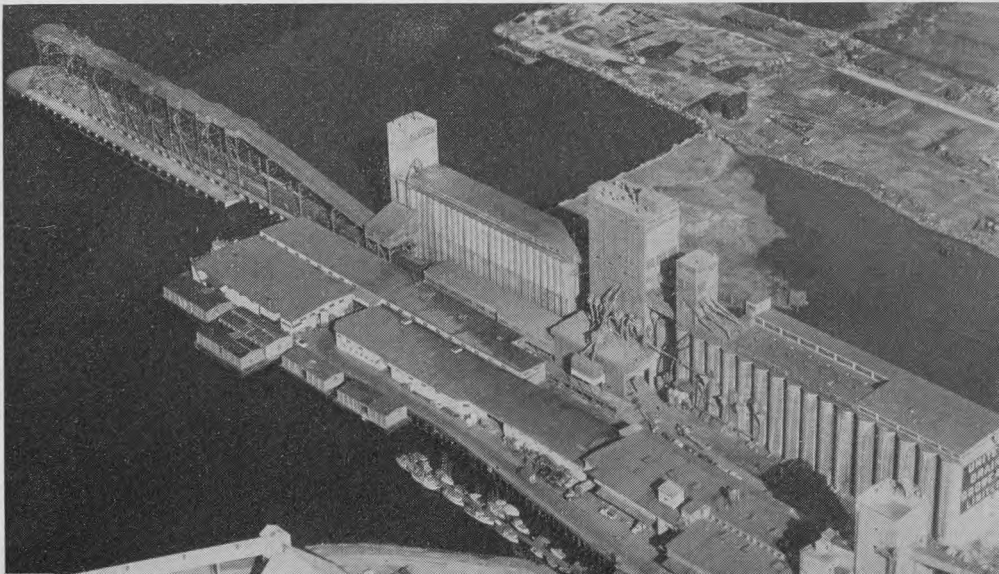
current basic minimum price is \$1.50 and the maximum \$1.90 per bushel. Both prices are basis Canada's top grade—One Northern in store at Port Arthur, Fort William or Vancouver.

The current Agreement, which covers about 65 per cent of the world's wheat trade, is administered by an International Wheat Council with headquarters in London. Every country participating is a member of the Council and every country has voting rights in proportion to its participation. Under the present Agreement import countries no longer bind themselves to buy guaranteed quantities within a specific price range. Instead they undertake that certain specific percentages of whatever wheat they import will be bought from the exporting countries as a group. Japan's commitment for example is 50 per cent. West Germany's is 70 per cent. The United Kingdom 80 per cent, etc. Such purchases are made within the price range from any one of the export countries. Thus neither Canada nor any other exporting country is guaranteed any specific quantity or percentage of exports.

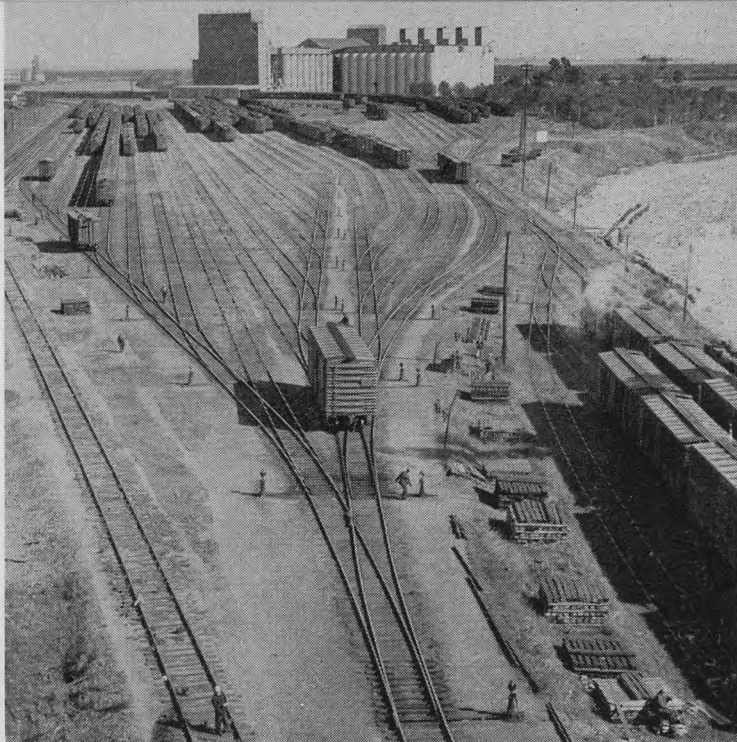
In a recent crop year Canada used 53,000,000 bushels of wheat for domestic purposes and exports by the Canadian Wheat Board were 292,000,000 bushels. Of the latter 82,000,000 bushels were sold under terms of the International Wheat Agreement, the balance being disposed of through world markets.

World wheat production in recent years has been much higher than the amount consumed. As a result huge surpluses for a time accumulated in Canada and other export countries. Related to the world surplus, of course, is the limitation of purchasing power of many countries who would welcome Canada's wheat but simply cannot afford it. Under such a situation, while the International Wheat Agreement may not have accomplished all that was hoped for, it has at least proved to be a highly important part of the international machinery in the sale and disposal of this primary food product.

*Terminal elevator at Vancouver showing loading gallery, left, where ships receive their cargoes.*



*Vast railway marshalling yards at the Lakehead provide for speedy handling when during harvest season hundreds of grain cars arrive daily.*



## THE ROCHDALE PIONEERS

**Founders of the  
Co-operative Movement**

*Life for the working class of England in 1884 was difficult and discouraging. Hours were long and wages miserably low. At Rochdale, near Manchester, twenty-eight workers from the nearby weaving mills, decided one day to improve their wretched conditions by opening a co-operative store. "We will sell our goods at retail price, pay a modest rate of interest on invested capital and divide the earnings according to the amount each of us spends in the store." Thus, with a plank set on barrels for a counter, the Rochdale Pioneers opened their tiny business. In doing so they laid the foundation for the Co-operative Movement which in a hundred years was to encircle the globe as a means for millions of people to solve their practical problems of everyday living.*

Founded on the same principles as those conceived by the weavers of Rochdale, United Grain Growers pioneered the farm co-operative movement in Western Canada. Its story is an impressive one . . . see over page.



*Birth of Grain Growers' Grain Company — the first farmers' company — in a tent at the Winnipeg Exhibition in 1906, when provisional directors were elected.*

## THE STORY OF UNITED GRAIN GROWERS

### Farmer-Owned Company Blazed Trail For Grain Co-ops in Western Canada

SEPTEMBER 5, 1906, was a day of little importance to the tenants of a downtown office building at Winnipeg. Questioned, they might have recalled that about that time a new occupant had moved into one of the smaller offices. A new tenant with a scarred and obviously second-hand desk and an equally worn typewriter. On the door a freshly painted sign proclaimed—if anyone was interested—that a new business would occupy the premises.

There was little to indicate that the unknown company which opened its doors for business that day had either a dramatic past or was to have an impressive future. Actually it had both.

Only recently it had been but a dream in the minds of a few prairie farmers; its very founding was a deed of risk and daring. Within a few



## UNITED GRAIN GROWERS LIMITED

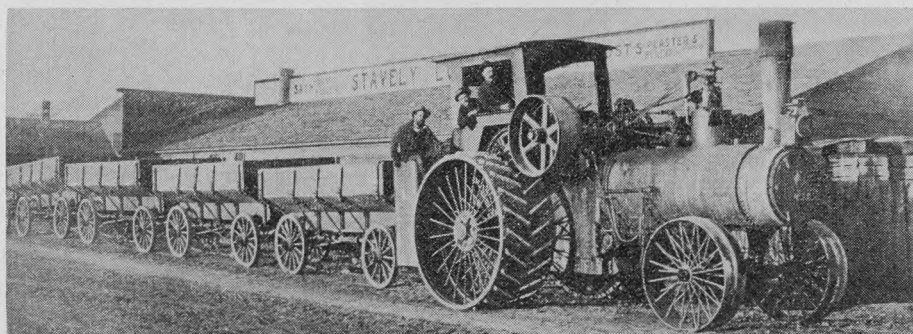
months only the personal courage of its directors would save it as it teetered on the brink of bankruptcy and failure. Somehow it survived and at the end of its first year showed a meagre profit.

Yet, in the years to come, this company would be known as one of the largest and most successful business enterprises in Canada. Its membership would number 50,000; its influence would set the pattern for virtually the whole of the organized farm movement in Western Canada, and its facilities would stretch from the Red River Valley of Manitoba, across the prairies of Saskatchewan and Alberta to Fort St. John on the Alaska Highway. This is the story of that company and its more than half a century of progress.

Today more than half of Western Canada's vast annual harvest is handled through farmer-owned co-operatives. Of these, United Grain Growers Limited is by far the oldest, for it is the company which opened its doors for business that September morning in 1906.

### Complete Farm Service

**O**PERATIONS of the U.G.G. are more diversified than those of any of the other major farm co-operatives. In addition to its grain handling facilities, which include terminal elevators at Port Arthur and Vancouver served by its system of 780 country elevators, the U.G.G. operates a modern plant at Edmonton manufacturing a complete line of livestock and poultry feeding supplements under the brand name "Money Maker Feeds." U.G.G. also offers farmers a general insurance service, distributes through its elevators and special representatives a wide range of farm supplies and publishes two of Canada's outstanding farm journals, "The Country Guide" and "Canadian Cattlemen." Through its agents and dealers the U.G.G. provides some type of farm service in over 2,000 prairie communities.



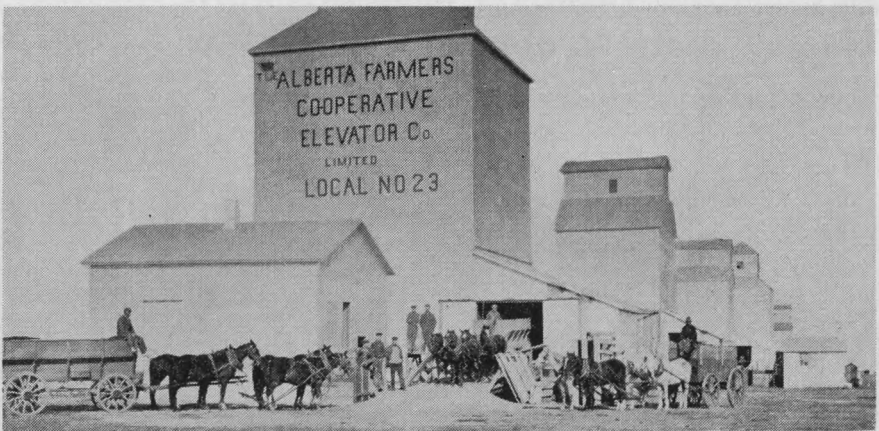
*In early days when rail transport was limited grain was hauled by steam freighter.*

## Farmers Organize to Fight Injustices

UNITED GRAIN GROWERS was born of necessity. At the turn of the century as great acreages of new land came under cultivation, wheat suddenly became important. From the new homesteads of the prairies was coming enough wheat to feed the nation. Though few realized it, wheat—now that the West was producing more than needed for domestic requirements—was laying the foundation for Canada's future export trade. It was logical that with the increasing harvests major problems of grain harvesting and transportation should present themselves, that practices considered unjust by farmers should creep into the new industry. Faced with rugged conditions of pioneer life—of long distances to markets—it was natural that they should seek to improve methods of marketing and grain handling.

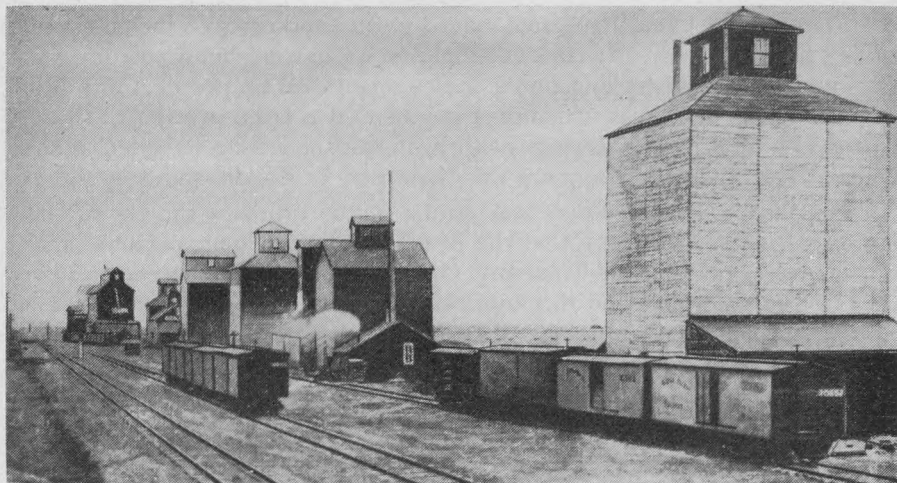
It was at Sintaluta, Saskatchewan, that a group of farmers finally decided to take action to bring about improvements. They would form a company to handle their own grain! It was a daring idea but their leading spokesman rallied them with a picture: "Suppose we had ten thousand farmers working together through an organization of our own . . . suppose each farmer produced an average of five thousand bushels of wheat . . . that would put us in control of handling fifty million bushels . . . all of it handled by farmers themselves!"

From that proposal came the resolution that was to form the basis of the new organization: "That we, the grain growers of Sintaluta, Saskatchewan, in mass meeting here assembled, heartily recommend the formation of a company composed wholly of farmers to be known as the Grain Growers' Grain Company, with shares at \$25 each and with a large enough issue of shares to include all western grain growers desirous of becoming members."



*Before use of modern trucks, horse-drawn wagons hauled grain to elevators.*

## UNITED GRAIN GROWERS LIMITED



*Old type elevators as photographed in 1907. Note the small box cars with capacities of 650 to 1,000 bushels.*

### **First Farmer-Owned Grain Company**

**T**HUS was launched Canada's first farmer-owned grain company. The Grain Growers' Grain Company (later to become United Grain Growers), with second-hand furniture in a small office at Winnipeg, announced to the world it was ready for business and formally opened its doors on September 5, 1906.

Membership in the new company at the outset was relatively small. Its paid up capital was only \$5,000. But farmers soon recognized the advantages of dealing with their own company and widespread support was soon forthcoming.

The Grain Growers' Grain Company was no ordinary company. It was a true co-operative enterprise, organized on the same basic principles as the Rochdale Pioneers—on which the co-operative movement of Great Britain is based. Accordingly, it provided for the issuing of share capital on which a limited rate of interest is paid . . . equal voting rights for members regardless of the number of shares held . . . and the payment of patronage dividends to customers.

### **Patronage Dividend Policy Challenged**

**I**NDEED it was the declaration by the Company of its intention to pay patronage dividends in its first year of operation that almost proved disastrous. Patronage dividends at that time were interpreted by the Winnipeg Grain Exchange as an intent to rebate part of the commission charges to the farmer.

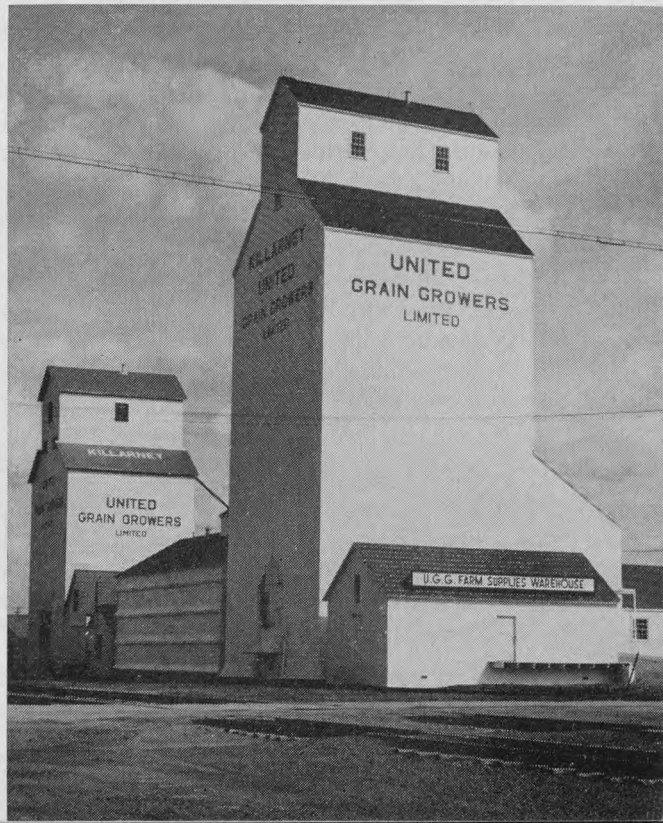
Alarmed, the Grain Exchange moved swiftly and revoked the company's trading privileges. Already consigned and en route were hundreds of cars of grain which, without trading rights, the company had no prospect of selling. Meanwhile the bank was demanding payment of a large overdraft. Thus in its first few months of existence, with no means of selling its grain and no financial reserves, the struggling new company faced disaster.

The faith of the founders was strong in the ultimate success of their daring enterprise. So strong that the directors pledged their personal assets to avert bankruptcy of the Company. On the farms and homesteads all over the West, farmers matched this confidence with their loyalty and increased support of their new company. Temporarily deferring its patronage dividend policy the new company somehow struggled through the year. It had weathered the first storms and prospects for the future seemed encouraging. With the passing of time its position in the grain trade became firmly entrenched.

## Patronage Dividend Paid

**T**HE Company's first patronage dividend was paid on the 1925-26 crop, though undoubtedly payment could have been made earlier had the shareholders so authorized. As it was, surplus earnings for preceding years were used for building new elevators and for general expansion of services then demanded by farmers. Dividends on share capital however commenced in 1907 and in only four years has the share dividend, currently set at 5 per cent, been missed. Total share and patronage dividends paid by the Company since its inception now well exceed \$21,000,000. Shareholders' equity stands at \$12,000,000 representing over \$2 for every dollar invested.

*Latest type elevators of United Grain Growers Limited.*





## **Success of Farmers' Company Stimulates Co-operative Movement**

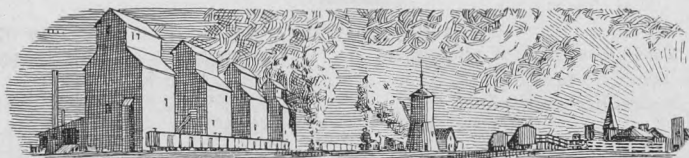
**T**HE young company's struggle for survival in the early days and the obvious advantages of co-operative marketing caught the attention of farmers in every part of the West. Its example prompted Alberta farmers to launch in 1913 a similar enterprise—Alberta Farmers Co-operative Elevator Company. As a start 10 country elevators were purchased and 42 were built. Saskatchewan farmers too formed their own co-operative and the three farmer-owned companies expanded rapidly.

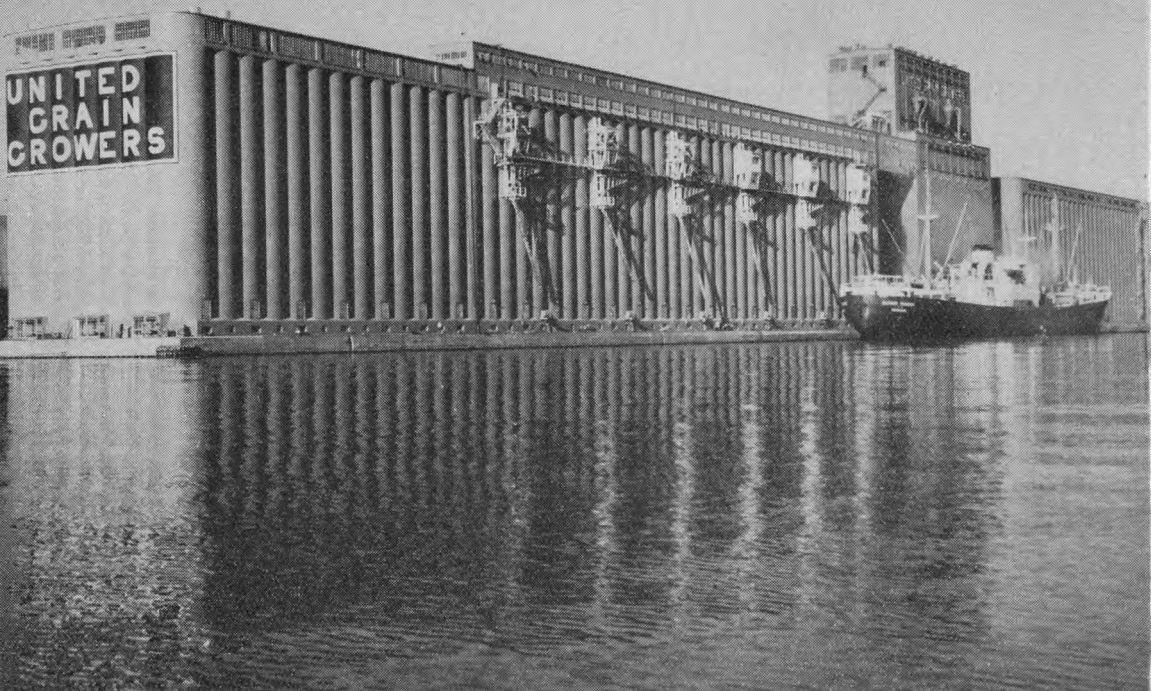
To avoid the danger of overlapping as expansion continued, several moves were made to unite the three co-operatives. In 1917 by almost unanimous vote of the members the Grain Growers' Grain Company and the Alberta Farmers Co-operative Elevator Company were amalgamated under the name United Grain Growers Limited. Saskatchewan had earlier decided against joining.

## **U.G.G. Champions Farmers' Interests**

**O**VER the years the U.G.G. has come to be recognized as one of the major business institutions of Western Canada. Its first concern however has always been the welfare of the farmer. It has actively supported legislative measures it considered to be in the farmers' interests—and strongly opposed those it felt were not. It has ever been ready to assist other farm organizations and in so doing, together with financial assistance provided for agricultural research, has made outright grants of over \$750,000. As a farmer-owned co-operative, control of its affairs is through some 330 delegates who represent the shareholder members. The delegates meet annually to review Company operations, decide policies and elect Directors. The Directors represent each of the prairie provinces.

All this was first made possible by the courage, faith and resourcefulness of a small group of farmers. Their ranks have since been swelled by many additional thousands who have given loyal support to the Company. By their united efforts they have succeeded in winning vastly improved methods of grain marketing and better living standards for all farm families in Western Canada.





*This modern United Grain Growers Terminal at Port Arthur has a capacity of 8,250,000 bushels.*

## Grain Production in Canada

10-Year Average (1951-60)

(Millions of Bushels)

	Manitoba	Saskatchewan	Alberta	Prairie Provinces	All Canada
WHEAT .....	51,300	296,300	126,900	474,500	497,518
OATS .....	60,000	117,900	111,000	288,900	425,983
BARLEY .....	45,300	81,700	103,700	230,700	238,864
FLAX .....	4,855	8,525	4,265	17,645	18,104
RYE .....	1,506	7,135	3,420	12,061	14,040

## Average Yield Per Acre—Prairie Provinces

(Bushels)

	5 Years 1956-60	10 Years 1951-60	50 Years 1910-60
WHEAT .....	19.8	20.7	16.7
OATS .....	36.2	37.7	31.8
BARLEY .....	26.9	27.6	24.1

## Major Canadian Wheat Importers

(Millions of Bushels)

	1960-61	1959-60	30-Year Average 1931-1960
United Kingdom .....	78.6	80.0	106.4
Japan .....	54.0	45.7	11.3
China, Comm. ....	34.7	—	.9
Germany — West .....	33.0	24.9	9.4
Italy .....	14.9	2.2	3.3
Belgium .....	12.2	10.7	10.6
Czechoslovakia .....	12.1	—	.4
France .....	9.9	5.5	3.7
U.S.S.R. (Russia) .....	7.5	—	1.6
Switzerland .....	7.3	7.8	4.2
Netherlands .....	6.6	7.9	7.1
Poland .....	5.7	4.9	1.3
Other Importers .....	34.5	45.1	49.5
Total .....	<u>311.0</u>	<u>234.7</u>	<u>209.7</u>

•

## WORLD CHAMPIONSHIP AWARDS

Royal Agricultural Winter Fair, Toronto

1950-1961

### WHEAT

1950 Rickey Sharpe, Munson, Alta.	1957 A. Davidson, Essex, England.
1951 Howard Roppel, Rockyford, Alta.	1958 Miss Gail Adams, Drumheller, Alta.
1952 R. R. Leonhardt, Drumheller, Alta.	1959 Douglas J. Mackintosh, Granum, Alta.
1953 R. R. Leonhardt, Drumheller, Alta.	1960 Wilbert Suehwold, Mitchellton, Sask.
1954 W. E. Breckon, Burlington, Ont.	1961 Ralph L. Erdman, Lethbridge, Alta.
1955 Robt. Cochrane, Grande Prairie, Alta.	
1956 Wm. Deurloo, Granum, Alta.	

### OATS

1950 J. T. Eliuk & Son, Hairy Hill, Alta.	1956 J. W. Bolton, Abee, Alta.
1951 M. B. Schnurer, Sangudo, Alta.	1957 W. Whitelock, Kelwood, Man.
1952 M. B. Schnurer, Sangudo, Alta.	1958 Wm. Whitelock Sr., Kelwood, Man.
1953 T. F. Rhatigan, South Edmonton, Alta.	1959 Roland Devos, Bruxelles, Man.
1954 J. Gray, Hawkill, Scotland.	1960 George A. Lamb, Cherhill, Alta.
1955 Wm. Sharp, Castleton, Banff, Scotland.	1961 Devos Brothers, Bruxelles, Man.

### BARLEY

1950 Albert Kessel, Rosetown, Sask.	1957 R. W. Hummel, Milk River, Alta.
1951 T. E. Brown & Son, Cassils, Alta.	1958 F. J. Schulz, Coutts, Alta.
1952 Albert Robbins, Laura, Sask.	1959 Lady Mary Delamere, Newmarket, England.
1953 G. S. Snow, Milk River, Alta.	1960 Allie McGaghran, Cobden, Ont.
1954 G. S. Snow, Milk River, Alta.	1961 A. Davidson & Son, Essex, England.
1955 R. W. Hummel, Milk River, Alta.	
1956 R. W. Hummel, Milk River, Alta.	



